

PATENT
Atty. Dkt. No. Y0R920030418US1

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for chemically fabricating or altering a submicrostructure on an object, comprising:

providing a heating means proximate to a local region of the object, wherein said heating means includes a heat emitting surface embedded in said heating means;

providing at least one reactant on the local region of the object; and

selectively heating the at least one reactant on the local region using the heat emitting surface of the heating means to facilitate in the local region a local chemical reaction for forming or altering a submicrostructure on the local region.

2. (Cancelled).

3. (Previously Presented) The method of claim 1, wherein the at least one reactant is provided in at least one of a liquid phase and a gaseous phase, where the liquid phase comprises at least one of a thin layer form and a droplet form.

4. (Original) The method of claim 1, wherein the chemical reaction effects at least one of etching, depositing, and removing material from the object.

5. (Original) The method of claim 1, wherein the heating means is adapted to a first end of a cantilever, wherein said cantilever has a second end coupled to a device for positioning the heating means.

6. (Original) The method of claim 1, wherein the heating means comprises at least one of a nanowire and a thermal transducer.

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7. (Previously Presented) The method of claim 6, wherein the heat-emitting surface of the thermal transducer has topographic dimensions in a range of about 10 to 200 nm.
8. (Original) The method of claim 1, wherein a heat-conductive medium is provided between the heating means and the local region.
9. (Original) The method of claim 8, wherein the heat-conductive medium comprises at least one of a lubricant and a reactant.
10. (Original) The method of claim 1, wherein the submicrostructure is a defect-eliminating feature formed or altered on a portion of a lithographic reticle or mask.
11. (Previously Presented) The method of claim 10, wherein the chemical reaction performs at least one of: etching a film in an opaque region, depositing a film in an opaque region, etching a film in a transparent region, or depositing a film in the transparent region.
12. (Original) The method of claim 1, wherein the submicrostructure is a portion of an integrated circuit.
13. (Original) The method of claim 12, wherein the portion is at least one of a line, a conductive via, a contact pad, and a dielectric pad.
14. (Original) The method of claim 1, wherein the submicrostructure is a portion of a field effect transistor.
15. (Previously Presented) The method of claim 14, wherein the chemical reaction causes at least one of: forming a channel region, forming source and drain regions, forming a gate dielectric, or forming a gate electrode.

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16. (Original) The method of claim 1, wherein the submicrostructure is an information-containing portion of a recording medium.

17. (Original) The method of claim 16, wherein the recording medium comprises at least one of digital video disks (DVD) and compact recording (CD-ROM) disks.

18-34 (Cancelled).